

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A method of processing a band-limited, over-sampled signal comprising:

reducing the amplitude of those portions of the band-limited over-sampled signal having peaks above a threshold value by:

clipping the band-limited over-sampled signal relative to said
threshold value,

filtering the clipped band-limited over-sampled signal, and

subtracting the filtered clipped signal from the band-limited, over-
sampled signal to produce an output signal; and

controlling ~~the~~ a frequency position of the a noise associated with the reduction of such peaks.

2. (currently amended) The method of claim 1 wherein the step of controlling the frequency position of the noise is combined at least in part with the step of filtering the clipped band-limited over-sampled signal.

~~reducing the amplitude comprises: clipping the signal relative to the threshold; filtering the clipped signal; and combining the filtered clipped signal with the band-limited, over-sampled signal.~~

3. (cancelled)

4. (*original*) The method of claim 2 wherein the step of filtering the clipped signal comprises creating a pulse having a pre-determined shape dependent upon the clipped samples.

5. (cancelled)

6. (currently amended) The method of claim [[2]] 1 wherein the step of ~~combining~~ subtracting comprises delaying the band-limited, over-sampled signal by an amount corresponding to the time taken to implement the clipping and filtering steps.

7. Cancelled.

8. (currently amended) The method of claim 1 wherein the step of controlling the frequency position of the noise comprises moving the noise outside the frequency band used by the band-limited over-sampled signal.

9. (currently amended) The method of claim 1 wherein the step of controlling the frequency position of the noise comprises moving the noise outside the frequency band used by a signal transmitted in ~~the opposite~~ a direction opposite to a transmission direction of said band-limited over-sampled signal.

10. (currently amended) The method of claim 9 wherein the signal contributes an echo to the signal transmitted in ~~the~~ said opposite direction.

11. (currently amended) A method of processing a band-limited, over-sampled signal comprising:

clipping the band-limited over-sampled signal at a given threshold;
subtracting the clipped signal from the band-limited over-sampled signal;
filtering the subtracted signal to thereby control ~~the~~ a frequency position of ~~the~~ a clipping noise of said clipped signal and produce a filtered clipped signal;
delaying the band-limited over-sampled signal; and
subtracting the filtered clipped signal from the delayed band-limited over-sampled signal, thereby reducing the amplitude of those portions of the band-limited over-sampled signal having peaks above the given threshold.

12. (currently amended) A circuit for processing a band-limited, over-sampled signal, comprising:

circuitry for reducing the amplitude of those portions of the signal having peaks above a threshold value by clipping the band-limited over-sampled signal relative to said threshold value, filtering the clipped band-limited over-sampled signal, and subtracting the filtered clipped signal from the band-limited, over-sampled signal to produce an output signal; and

circuitry for controlling the frequency position of the noise associated with the reduction of such peaks.

13. (original) The circuit of claim 12 wherein the circuitry for reducing comprises:

a limiter for clipping the signal relative to the threshold;

a filter for filtering the clipped signal; and

an arithmetic unit for combining the filtered clipped signal with the signal.

14. (original) The circuit of claim 13 wherein the arithmetic unit is a subtractor.

15. (currently amended) The circuit of claim ~~12~~ 13 further including a delay circuit for providing a delayed version of the signal to the arithmetic unit.

16. (original) The circuit of claim 12 wherein the circuitry for controlling the frequency position of the noise comprises a filter.

17. (original) The circuit of claim 12 wherein the circuitry for controlling the frequency position of the noise controls the noise to be positioned outside the frequency band used by the signal.

18. (currently amended) The circuit of claim 12 wherein the circuitry for controlling the frequency position of the noise controls the noise to be positioned outside the frequency band used by a signal transmitted in ~~the opposite~~ a direction opposite to a transmission direction of said band-limited over-sampled signal.

19. (currently amended) The circuit of claim 18 wherein the signal contributes an echo to the signal transmitted in ~~the~~ said opposite direction.

20. (currently amended) A circuit for processing a ~~band-limited, over-sampled~~ multi-carrier signal comprising:

a limiter for clipping the multi-carrier signal to a given threshold;

a first subtractor for subtracting the clipped signal from the multi-carrier signal, thereby generating clipped samples;

a filter for filtering the clipped samples to thereby control ~~the~~ a frequency position of ~~the~~ a clipping noise of said clipped signal;

a delay circuit for generating a delayed version of the multi-carrier signal;

and

a second subtractor for subtracting the filtered clipped samples from the delayed multi-carrier signal, wherein the amplitude of those portions of the multi-carrier signal having peaks above the threshold is reduced.